

## FACT SHEET



### INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

## Vapor Intrusion Office of Land Quality

(317) 232-3215 • (800) 451-6027

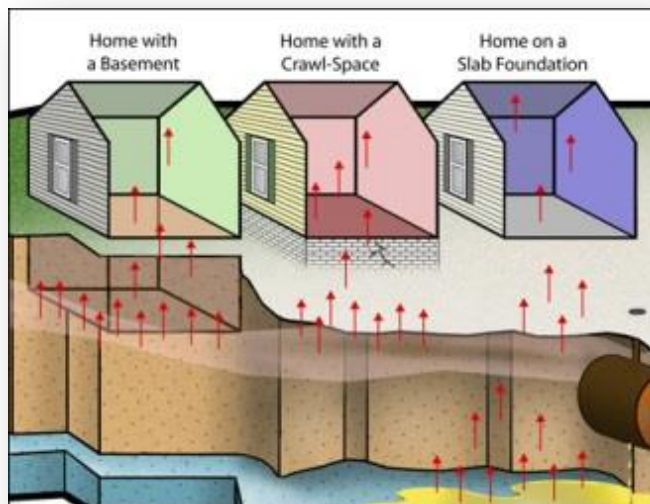
[www.idem.IN.gov](http://www.idem.IN.gov)

100 N. Senate Ave., Indianapolis, IN 46204

### Introduction

Vapor intrusion is a process in which chemical vapors from contaminated soil or groundwater affect the indoor air quality in a building. Whenever chemicals have been spilled on the ground or leak from an underground storage tank, they can soak into the soil or dissolve into the groundwater and begin to spread. The contaminated soil or groundwater can emit vapors that spread to areas occupied by buildings. Vapors can enter the buildings through cracks in basements, foundations, sewer lines, and any other type of opening. Occasionally, the vapors can increase to concentrations that may be harmful to human health.

Vapor intrusion can occur from chemical spills that happened many years ago and can last a long time.



### Can I get sick from vapor intrusion?

Exposure to high levels of some chemical vapors can cause symptoms such as dizziness, respiratory irritation, a burning sensation in the eyes, a headache or nausea. These symptoms are usually temporary and disappear shortly after the exposure has ended. It is possible that long term exposure (exposure to some types of chemical vapors over the course of many years) might elevate the risk of cancer or chronic diseases. To learn more or discuss concerns about potential health impacts, individuals should check with their health department or consult a health care provider.

### How do I know if my home has vapor intrusion?

In most situations, the only way to know whether vapor intrusion is a problem in your home is to test the air on the inside and beneath your home. Without testing, you will probably not know if your house is experiencing vapor intrusion because the vapors cannot be seen or tasted and many times have no odor. Sometimes, at high levels or under certain weather conditions, you may smell sweet or gasoline-like odors which can indicate a vapor intrusion problem. Unlike testing for radon, which can be done by homeowners, special training and equipment is required for vapor intrusion testing. Where vapor intrusion is suspected, an environmental professional should be consulted for testing services.

### How to test my home for vapor intrusion

There are many ways to test your home for a vapor intrusion problem. In general, an air sample must be collected from inside your home and below your home. One way uses a canister, like the one pictured, to collect an air sample. The canister is then sent to a laboratory for testing. You should speak with the Indiana Department of Environmental Management (IDEM) or the environmental professional conducting the testing for more information about what to expect when testing for vapor intrusion. In some cases, IDEM, a third party or an environmental professional may seek your permission to conduct vapor intrusion testing in or under your home.



### Did you know?

Many ordinary household products contain chemicals that can get into the air in your home. Some of these products include:

- *Paint/paint strippers/thinners*
- *Moth balls*
- *Dry cleaned clothing*
- *Cigarette smoke*
- *Adhesives*
- *Spot cleaners*
- *Gasoline containers*
- *Insecticides*

Air in your home might contain chemical vapors from products like these. Chemical vapors from household products may be unsafe, but they do not cause vapor intrusion. Sometimes, the person doing testing will ask you a list of questions about common substances you may have in your home. This will help the person doing the testing determine if chemical vapors are from vapor intrusion or products within your home. This information is necessary to improve the air you breathe in your home.

### Vapor intrusion can be controlled

There are different ways to control vapor intrusion. One common approach is to use a “vapor intrusion mitigation system,” which is similar to a radon remediation system. These systems work by stopping vapors from entering your house.

Vapor intrusion mitigation systems will not protect you from vapors that come from household products, but they can protect you from radon and other chemical vapors entering your home from below.

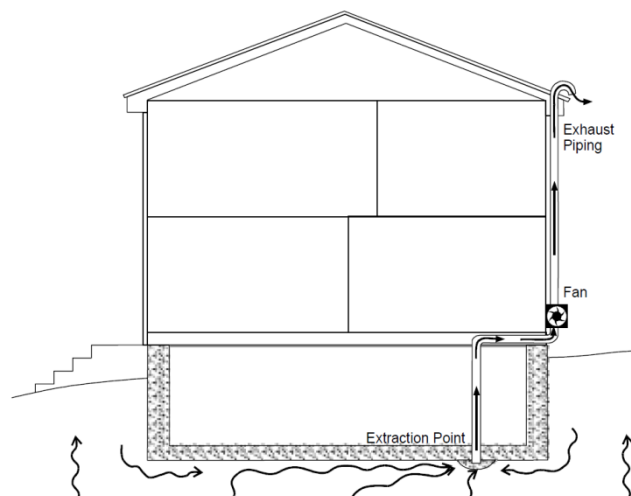
### IDEM wants to protect your well-being

The mission of the Indiana Department of Environmental Management (IDEM) is to protect human health and the environment, while providing for safe industrial, agricultural, commercial and governmental operations vital to a prosperous economy.

IDEM can help determine who is responsible for investigating and correcting vapor intrusion problems.

### For more information

For more information on vapor intrusion, please visit IDEM's website at [www.in.gov/idem/landquality/2460.htm](http://www.in.gov/idem/landquality/2460.htm) or the U.S. Environmental Protection Agency's website at <http://www2.epa.gov/vaporintrusion/what-vapor-intrusion>. Please direct questions to IDEM's Office of Land Quality, at (317) 232-3215 or (800) 451-6027, ext. 2-3215 (toll free).



Vapor Intrusion Mitigation System.  
Diagram: New Jersey Department of Environmental Protection